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## **CLAIMS**

1. A method for identifying fluid purification equipment which is optimized for use in a particular fluid purification system, which comprises:

providing a relational database of specifications regarding a plurality of equipment components from which selection of individual components may be made;

providing access to said database through an interactive interface of an operating system comprising a series of sequential inquiries, response to each of which determines a next inquiry to be posed or a component to be specified, said inquiries eliciting defining information regarding said particular fluid purification system; and

using said defining information to identify those of said components which, when assembled to form said fluid purification equipment in a manner specific to said particular fluid purification system, can be operated so as to optimize fluid purification in said particular fluid purification system.

- 2. A method as in Claim 1 further comprising said inquiries eliciting said defining information regarding operating parameters of said particular fluid purification system.
- A method as in Claim 2 further comprising at least one of said operating
  parameters being selected from the group consisting of fluid type, fluid flow rate,
  inlet fluid contaminant challenge, outlet fluid purity, duty cycle, life span between
  service, fluid temperature, fluid pressure, cost and connections to upstream and
  downstream portions of said particular fluid purification system.
- A method as in Claim 1 wherein said database comprises a plurality of
  subdatabases, each subdatabase comprising selection information regarding at
  least one property of at least one said component of said fluid purification
  equipment.



- 5. A method as in Claim 4 wherein a series of said responses to inquiries
- through said interface causes said operating system to compile a series of component selections from said plurality of subdatabases, which components
- will, when assembled, form said fluid purification equipment which can be operated so as to optimize fluid purification in said particular fluid purification
- 6 system.
- 6. A method as in Claim 5 further comprising causing said subdatabases to
  2 be addressed sequentially, a sequence of addressing being determined at each step in said sequence by said response elicited in an immediately prior step.
- A method as in Claim 5 wherein compilation of said series of component
  selections further causes said operating system to generate a subsequent series of inquiries regarding choice of equipment ancillary to said fluid purification
  system.
- 8. A method as in Claim 7 wherein said equipment ancillary to said fluid purification system comprises fluid flow, process control and instrumentation equipment.
- 9. A method as in Claim 4 wherein said selection information of at least one
  of said subdatabases comprises data for evaluating from said responses
  whether a defined component currently is available in the marketplace and if not
  what design and manufacture costs of said defined component would be.
- 10. A method as in Claim 4 wherein said selection information of at least one
  of said subdatabases comprises data for evaluating from said responses whether combinations of defined components are operationally compatible and
  presenting a notification thereof.

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- 11. A method as in Claim 10 further comprising said notification including suggesting options for alternative compatible combinations.
- 12. A method as in Claim 1 further comprising said using said defining
  information to identify a plurality of combinations of said components, wherein each combination of said plurality can be assembled to form said fluid
  purification equipment in a manner specific to said particular fluid purification system and can be operated so as to optimize fluid purification in said particular fluid purification system.
- 13. A method as in Claim 12 wherein said combinations of said components
  differ from each other with respect to technical and economic parameters, and said method further comprises generating a further inquiry response to which
  indicates selection among said combinations of a specific combination of said technical and economic parameters most suitable for obtaining optimized fluid
  purification in said particular fluid purification system.
- 14. A method as in Claim 1 wherein said fluid comprises a liquid, a gas or a mixture thereof.
- 15. A method as in Claim 14 wherein purification of said liquid, gas or mixture
  comprises removal of contaminants to a level in a parts per million or parts per billion range.
- 16. A method as in Claim 14 wherein purification of said liquid, gas or mixture comprises absorption, separation or filtration.
- 17. A method as in Claim 1 further comprising gaining access to said
  relational database by means of a computer or through a global computer network.

- 2 18. Apparatus comprising electronic media comprising embodiment of the method of Claim 1 in a form accessible for interactive use.
- 19. Apparatus as in Claim 18 further comprising said embodiment comprising a relational database and operational software therefor.
- 20. Apparatus as in Claim 19 wherein said relational database comprises a
  plurality of subdatabases, each subdatabase comprising selection information regarding at least one property of at least one said component of said fluid
  purification equipment.
- 21. Apparatus as in Claim 20 wherein said selection information of at least
  one of said subdatabases comprises data for evaluating from said responses whether combinations of defined components are operationally incompatible and
  presenting a notification thereof.
- 22. Apparatus as in Claim 19 further comprising accessability to said
  relational database and operational software therefor being by means of a computer.
- 23. Apparatus as in Claim 22 where said relational database and operational software therefore are maintained on and accessible from said interactive storage media disposed within said computer.
- 24. Apparatus as in Claim 23 wherein said interactive storage media comprises a memory hard drive, a CD-ROM or a DVD-ROM.
- 25. Apparatus as in Claim 22 wherein said computer comprises a desktop
  computer, a laptop computer or an Internet-access-specific computer.

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- 26. Apparatus as in Claim 18 wherein said electronic media comprises a global computer network.
- 27. Apparatus as in Claim 26 further comprising said embodiment comprising a relational database and operational software therefore, with accessability thereto being through an Internet Web site on said global computer network.

